

Soldo Memorial Park at Skye Canyon

Technical Drainage Study Update

City of Las Vegas, NV

Prepared For:

Century Communities of Nevada, LLC
6345 South Jones Boulevard
Las Vegas, NV 89118
Phone: 702-873-5338

Prepared By:

Westwood Professional Services
5725 w. Badura Avenue, Suite 100
Las Vegas, NV 89118
Phone: (702) 284-5300



Project Number: CEN2201.000
Date: April 2023

Kellin Collins, P.E.
NV Professional Engineer No. 21860

Assisted by: Phil Koerschner

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Soldo Memorial Park at Skye Canyon Update No.1 Date: April 2023
 Location of Development: a) Descriptive (Cross Streets): North/South: Alpine Ridge Way
East/West: Iron Mountain Road
 b) Section: 1 Township: 19 Range: 59
 c) APN: 126-01-401-013

Name of Owner: USA and Las Vegas City Lease / Century Communities
 Telephone No.: 702-873-5338 Fax No.: _____ E-mail Address: paulo.chavez@centurycommuni+
 Address: 6345 South Jones Boulevard Las Vegas NV 89118

Contact Person – Name: Kellin Collins Telephone No.: (702) 284-5300
 *E-mail Address: kellin.collins@westwoodps.com Fax No.: (702) 284-5399
 Firm: Westwood Professional Services
 Address: 5725 W. Badura Ave, #100 Las Vegas NV 89118

Type of Land Development/Land Disturbance Process:

☐ Rezoning	☐ Subdivision Map	☐ Clearing and grading Only
☐ Parcel Map	☐ Planned Unit Development	☒ Other (Please specify below)
☐ Large Parcel Map	☐ Building Permit	☐ Park

1. Total Owned Land Area: At Site: 10 Being Developed/Disturbed: 10

2. Is a portion or all of the subject property located in a FEMA Flood Hazard Area? ☐ Yes** ☒ No

3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☒ Yes** ☐ No

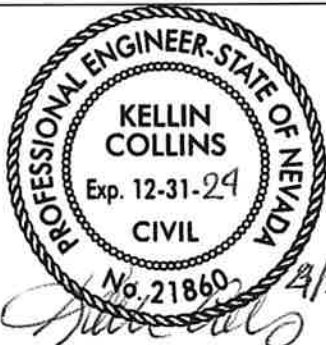
4. Proposed type of development (Residential, Commercial, Etc.): Park

5. Approximate upstream land area which drains to the subject site: 28 +/- acres

6. Has the site drainage been evaluated in the past? ☐ Yes** ☒ No If yes, please identify documentation: _____

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Northeast to the intersection of Radley and Alpine Ridge

8. Briefly describe your proposed schedule for the subject project: ASAP



Engineer's Seal

Submit this form as part of the required drainage study to the local entity which has jurisdiction over The subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

***Newly Required Field**

****Review and concurrence of the Clark County Regional Flood Control District is required**

Revision	Date

Local Entity File No. _____

REFERENCE: STANDARD FORM 1

Updated 05/01/2008

CEN2201.000

April 25, 2023

Albert Sung, P.E.
City of Las Vegas
495 S. Main Street
Las Vegas, NV 89101

Subject: Technical Drainage Study Update for Soldo Memorial Park at Skye Canyon

Mr. Sung:

This letter certifies that all items provided on electronic submittal CD matches 100% of the *Technical Drainage Study Update for Soldo Memorial Park at Skye Canyon* bound paper version.

Respectfully Submitted,
WESTWOOD PROFESSIONAL SERVICES



Phil Koerschner
Graduate Engineer – Water Resources Services

CEN2201.000

April 24, 2023

City of Las Vegas
495 S. Main Street
1st Floor
Las Vegas, Nevada 89101

**Subject: Soldo Memorial Park at Skye Canyon
(DS5602D)**

Dear Mr. Sung:

Submitted for your review is this Technical Drainage Study Update for *Soldo Memorial Park at Skye Canyon* (hereinafter referred to as the project site). The project site is located on the northwest corner of Iron Mountain Road and Alpine Ridge Way. The original Technical Drainage Study and applicable addenda for the project site was approved by the City of Las Vegas (CLV) on April 13, 2023. Refer to Appendix A for the approval letters.

Purpose: This update letter and plan sheet attachments are provided to support changes made to the storm drain within Alpine Ridge Way for the Soldo Memorial Park at Skye Canyon project. Alignment changes are necessary to accommodate required separation between the proposed 36" RCP storm drain and a water utility that is designed and proposed by others.

Hydrology: No hydrologic changes are being presented with this update. As such, no revised hydrologic computations are required nor provided.

Storm Drain Hydraulics: Due to the conflicting 36" water utility, the proposed 36" storm drain in Alpine Ridge Way was revised to meet UDACS requirements, and therefore proposed SDMH #5 has been shifted northeast to provide required separation. The new proposed storm drain alignment lies between the two previous storm drain alignments presented in the original study's Addendum #2 and Supplement to Addendum #2; the previous alignments can be found in Appendix B. The alignment changes are considered minor, due to the following:

- Slopes for pipe segments between SDMH#4 and SDMH #5, and between SDMH #5 and #6 have remained the same.
- Angle changes at SDMH #4 and #5 are minor and should have a negligible impact on the HGL of the system.

Conclusions: Negligible changes to the system HGL are expected based on these changes, so a new hydraulic model has not been provided. It is expected that the system continues to meet all storm drain criteria, as the HGL for the majority of the system is well under finished grade. The improvement plans included in the last appendix supports the conclusions and recommendations detailed in this Update. If you have any questions or require additional information, please contact us at 702-284-5300.

Respectfully Submitted,
WESTWOOD PROFESSIONAL SERVICES



Phil Koerschner
Graduate Engineer – Water Resources Services

CC: Melissa Murphy, P.E.
Kellin Collins, P.E.

List of Appendices

- Appendix A** **City of Las Vegas Approval Letter**
- Appendix B** **Improvement Plan Sheet SD-2**
- Addendum #2 Storm Drain Alignment
 - Addendum #2 Supplement Storm Drain Alignment
 - New Proposed Storm Drain Alignment with Notes
- Appendix C** **Improvement Plans**

APPENDIX A

City of Las Vegas Approval Letter & Email Coordination

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		April 13, 2023
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	
	Soldo Memorial Park at Skye Canyon	
Cross Streets:	NWC Alpine Ridge Way & Iron Mountain Rd.	COPIES TO:
File Number:	F:\Depot\DSMemos\DS5602D.doc	Westwood Professional Services
Parcel Number:	126-01-401-013	Century Communities Nevada
Zoning Action:	22-0554-DVN1 & 22-0554-SDR1	Bart Anderson, P.E., DevCo
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal (Paid on 9/6/2022)	8/3/2022 & 9/6/2022	9/14/2022	Not Approved	\$400.00	4941132: \$400
2 nd Submittal	12/8/2022	12/29/2022	Not Approved	\$400.00	5067594: \$400
3 rd Submittal	2/16/2023	3/2/2023	Not Approved	\$400.00	5147797: \$400
4 th Submittal (Supplement)	3/22/2023	4/13/2023	See Comments Below	N/C	N/C
TOTAL FEES (LDDRS):				\$1,200.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
X	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
	is conditionally approved subject to Clark County Public Works Department concurrence.

1. **This drainage study is acceptable in concept;** however, *City of Las Vegas* will not formally accept the study until the *Clark County Regional Flood Control District (CCRFCD)* has issued a letter of concurrence. The engineer should contact the CCRFCD to confirm that they have begun their review.

Please note that effective March 15, 2019, the CCRFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

2. Coordinate the proposed BLM Grant for the south half of *Radley Avenue* and the west half of *Alpine Ridge Way* with *City of Las Vegas Right-of-Way* (Nancy Logan at 229-6545) and submit appropriate information to support BLM reservation for the street. No improvements may be constructed prior to the BLM Grant.

3. Add the following note as Standard Note #6 to the "*Stormwater Runoff Management*" column in Sheet C-2 and to the "*Las Vegas Valley Construction Site BMP Guidelines*" column in all grading plans:

Post-Construction BMPs (PCBMPs) / Control Measures noted on the Grading Plans are mandatory permanent regulatory stormwater pollution controls. These PCBMPs must be installed per the approved plans and must be permanently maintained.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS
AYS

T/R/S: T19S/R59E/01
AREA F-01

Phil Koerschner

From: Albert Sung <YSung@LasVegasNevada.GOV>
Sent: Thursday, April 20, 2023 5:12 PM
To: Phil Koerschner
Subject: RE: Soldo Park (DS5602A) Storm Drain Alignment Shift

Phil,

This still requires a DS update! However, since this is very minor, the update will be just a letter form to explain for the changes.

If time is an issue, I'll help you to finish the review within a week.

Hope that help!

Albert Y. Sung, P.E.

Project Engineer
Public Works Dept. / Flood Control
(702) 229-6541
495 S. Main Street
Las Vegas, NV 89101



lasvegasnevada.gov



Your opinion is important! [Click here](#) to take a short survey.

From: Phil Koerschner <Phil.Koerschner@westwoodps.com>
Sent: Thursday, April 20, 2023 10:02 AM
To: Albert Sung <YSung@LasVegasNevada.GOV>
Cc: Kellin Collins <Kellin.Collins@westwoodps.com>
Subject: Soldo Park (DS5602A) Storm Drain Alignment Shift

CAUTION: This email originated from an **External Source**. Please **use caution** before opening attachments, clicking links, or responding to this email. **Do not sign-in with your City of Las Vegas account credentials.**

Hi Albert,

On the Soldo Park project (DS5602A), we have a slight storm drain change that is necessary due to a future water/storm drain separation issue that we did not catch before the previous supplement submittal.

On attached plan sheet 'CEN2201 – Add2 Supp' you can see that when we shifted the 36" storm drain in Alpine Ridge Way to the west, we have insufficient separation between SDMH #5, and a 36" waterline that is being proposed by others. This waterline was not shown on the plans at the time, but its alignment can now be found on attachment 'CEN2201 – pro'. Due to this separation issue, the storm drain has been shifted back to the east some, as well as a slight

angle change out of manhole SDMH #4. These changes allowed for the recommended 10' clearance from the waterline and manhole.

We are hoping that because this storm drain alignment falls between the previous Addendum #2 Supplement and Addendum #2 alignments, that an update to the drainage study is not required. The angle change is minor, and should have a negligible impact to the HGL which is well under the finished surface.

Please let us know if this change will require an update submittal. We would be happy to jump on a call to discuss if you have any questions. Thank you!

Phil Koerschner

Graduate Engineer

phil.koerschner@westwoodps.com

direct (702) 284-5300

cell (906) 271-0074

Westwood

5725 W. Badura Ave, Suite 100
Las Vegas, NV 89118

westwoodps.com

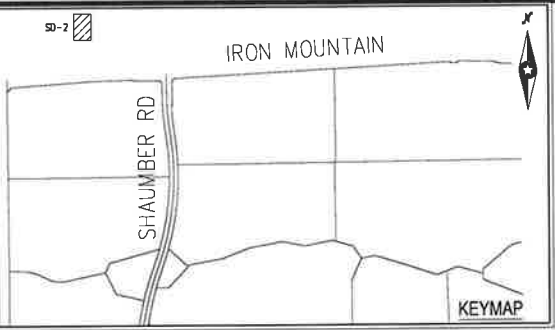
(888) 937-5150

APPENDIX B

Improvement Plan Sheet SD-2

Addendum #2 Storm Drain Alignment

Addendum #2 Supplement Storm Drain Alignment



CONSTRUCTION NOTES

- 1 CONSTRUCT AC PARKING AREA. SEE SOILS REPORT FOR SECTION
- 2 CONSTRUCT B' A-TYPE CURB PER DETAIL 1, SHEET D-1.
- 3 INSTALL PRECAST CONCRETE WHEEL STOPS PER DETAIL 2, SHEET D-1
- 4 CONSTRUCT 4" THICK CONCRETE SIDEWALK OVER 8" WIN TYPE II AGG BASE WITH PER PLAN. SEE LANDSCAPE PLANS FOR FINISH.
- 5 CONSTRUCT HANDICAPPED VAN ACCESSIBLE PARKING STALL IN ACCORDANCE WITH ADA STANDARDS.
- 6 CONSTRUCT 8" CROSS GUTTER PER CAUSWAY # 228
- 7 INSTALL PREFABRICATED RESINIDUM BUILDING. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 8 CONSTRUCT CASE II SIDEWALK SAMP PER PLAN USING ARMOR TILE TRUNCATED DOWNS OR EQUIVALENT PER CAUSWAY NO. 235
- 9 PICKET BALL COURT. SEE LANDSCAPE PLANS FOR HORIZONTAL DIMENSIONS AND STRIPING DETAILS
- 10 CHILD PLAY AREA. SEE LANDSCAPE PLANS FOR CONSTRUCTION MATERIALS AND HORIZONTAL DIMENSIONS
- 11 JACUZZI PAD AREA. SEE LANDSCAPE PLANS FOR CONSTRUCTION MATERIALS AND HORIZONTAL DIMENSIONS.
- 12 CONSTRUCT CROSS GUTTER PER USDOCA STD. DWG. NO. 728
- 13 INSTALL 6" BENCH. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 14 INSTALL TRASH RECEPTACLE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 15 INSTALL CUP WASTE RECEPTACLE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 16 INSTALL ACCESS GATE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 17 CONSTRUCT CHAIN LINK FENCE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 18 SHADE RAMADA. SEE LANDSCAPE PLANS FOR CONSTRUCTION MATERIALS AND DETAILS.
- 19 CONSTRUCT DECORATIVE FENCE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 20 CONSTRUCT 1" TYPE CURB AND GUTTER (USDOCA STD. DWG. NO. 216)
- 21 SOCCER FIELD. SEE LANDSCAPE PLANS FOR HORIZONTAL DIMENSIONS AND STRIPING DETAILS
- 22 CONSTRUCT DEPRESSIONED CURB PER DETAIL 5 ON D-1
- 23 CONSTRUCT DEPRESSIONED CURB TRANSITION PER DETAIL 4 ON D-1
- 24 CONSTRUCT STATUE. SEE ARCHITECTURAL PLANS FOR CONSTRUCTION MATERIALS AND DETAILS
- 25 REMOVE STORM DRAIN ROP CAP.
- 26 CONSTRUCT SIDEWALK UNDERDRAIN (USDOCS STD. DWG. NO. 236)
- 27 CONSTRUCT CONCRETE U CHANNEL PER DETAIL 10 ON SHEET D-1
- 28 CONSTRUCT SOLID GROUTED STEW WALL AND RETAINING WALL. SEE STRUCTURAL PLANS FOR DETAIL
- 29 CONSTRUCT 12" TYPE II ACCESS ROAD. SEE DETAIL ON SHEET D-1

SEE SHEET C-3 FOR ABBREVIATIONS AND QUANTITIES

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/CITY SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING FACILITIES IF ENGINEER/CITY IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. 140843 FIRST APPROVED DATE: _____

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
TECHNICAL DRAINAGE STUDY DS 5602 ON FILE AT CITY OF LAS VEGAS FOR THE
SUBJECT PROJECT

CELISA MURPHY, P.E. 18483 DATE _____



New Proposed Storm Drain Alignment with Notes

APPENDIX C

Improvement Plans